National Board of Examinations

Question Paper Name :	DrNB Medical Genetics Paper1
Subject Name :	DrNB Medical Genetics Paper1
Creation Date :	2025-01-17 20:02:45
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Share Answer Key With Delivery Engine :	No
Actual Answer Key :	No

DrNB Medical Genetics Paper1

Group Number :	1
Group Id :	3271872841
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100

DrNB Medical Genetics Paper1

Section Id :	3271872844
Section Number :	1
Section type :	Offline
Mandatory or Optional :	Mandatory
Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	3271872848
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 32718729694 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Please write your answers in the answer booklet within the allotted pages as follows:-

Question Number	Answer to be attempted within	Question Number	Answer to be attempted within
Q. 1	Page 1-5	Q. 6	Page 26-30
Q. 2	Page 6-10	Q. 7	Page 31-35
Q. 3	Page 11-15	Q. 8	Page 36-40
Q. 4	Page 16-20	Q. 9	Page 41-45
Q. 5	Page 21-25	Q. 10	Page 46-50

1. a) Define Genetic counseling. [4]
b) Write the risk assessment strategy for various categories of genetic disorders. [6]

Question Number : 2 Question Id : 32718729695 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

a) What is the role of consanguinity in recessive disease? [3]
b) Explain role of homozygosity mapping in such families with the help of figures. [4]
c) Explain founder effect with the help of examples. [3]

Question Number : 3 Question Id : 32718729696 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

What are the three mechanisms of diseases in autosomal dominant conditions. Explain each with the help of at least one example. [3.5+3.5+3]

Question Number : 4 Question Id : 32718729697 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

a) Explain X chromosome inactivation. [5]
b) Explain how it acts as a modifier of X linked disorders? [5]

Question Number : 5 Question Id : 32718729698 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

a) Describe RNA sequencing. [2]
b) Discuss the mechanism underlying RNA sequencing based genetic diagnoses. [8]

Question Number : 6 Question Id : 32718729699 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Explain mosaicism and its mechanism. Give two examples. [6+4]

Question Number : 7 Question Id : 32718729700 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

a) Uniparental disomy. [5]
b) Genomic imprinting. [5]

Question Number : 8 Question Id : 32718729701 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Explain Pharmacogenomics with examples where it is clinically relevant to the treatment to be instituted. [5+5]

Question Number : 9 Question Id : 32718729702 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Explain Biomarkers and its relevance for rare disorders with the help of examples. [5+5]

Question Number : 10 Question Id : 32718729703 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

“Karyotype is now an obsolete test” Do you agree with this statement? Explain with reasons. [2+8]